

months after TDDO completion. Complications were grouped by type.

Results: 88% (8/9) of patients generated a mandibular construct. 33% (3/9) of patients developed a complete construct, and two of these patients did not receive radiation therapy. 55% (5/9) developed a partial construct. 6 patients developed a plate exposure. 33% (3/9) developed flap pedicle compromise.

Conclusion: This pilot study suggests that construct formation with TDDO is possible for large composite mandibular defects in patients who have not received radiation or are to receive postoperative radiation. The complication rate was unacceptably high and will likely improve with better patient selection, refinement in surgical technique, and modification in device design.

PD.139 Postoperative complications after surgery and free tissue transfer of tumors in the head and neck region. Results from the study of 70 patients

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Introduction: We retrospectively analyzed the factors associated with postoperative complications in a cohort of 70 patients with head and neck cancer who underwent free tissue transfer reconstruction.

Materials and Methods: During the years 1999 to 2004, 71 free tissue transfers were performed in our Department on 70 patients. There were 51 male and 19 female patients with ages ranging from 20 to 87 years. Sixty five flaps were used for reconstruction after oncological craniofacial resections and 1 flap for facial reanimation. The type of free flaps included 53 radial forearm, 10 muscle or myocutaneous rectus abdominis flaps, 5 osteocutaneous fibula flaps, 2 latissimus dorsi muscle flaps and 1 gracilis flap. Free tissue transfer was successful in 94.3% of the cases. After a mean follow up period of 27.6 months, 49 of the 70 patients are alive and free of disease.

Results: Complications developed in 38 cases. Systemic complications occurred in 7 patients (10%) such as cerebrovascular accident (1), pneumonia (2), pulmonary embolism (1), dysphagia (1), deaths (2). Twenty-nine (40.8%) patients developed complications from donor and recipient side such as wound dehiscence (8), bone fracture (2), mobility and sensitivity deficit (3), total flap loss (4), fistula formation (1), seroma (2), and delayed wound healing (4). In 5 cases re-exploration of the anastomoses was mandatory.

Conclusion: Despite the extent of the operations, the incidence of systemic complications was comparatively low and in agreement with the findings from other centers. Complications were found to be depended of specific factors such as the age, preoperative radiation, Charlson's comorbidity index, and anatomical site of the primary tumor. Microvascular free tissue transfer for reconstruction of extensive oncological defects is a safe and reliable method for complex one stage reconstruction. Systemic and local complications do not exceed the percentage found in other types of oncological surgery.

PD.140 Functional success of implant prosthetic rehabilitation following ablative surgery in oral cancer patients

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Introduction: Implant supported prosthodontic reconstruction is commonly accepted as an integrated part of rehabilitation concepts following ablative tumour surgery. Multiple studies in the current literature show comparable survival rates of endosseous implants in tumour patients. Much less attention is given to functional aspects. Primary site surgery results in significant changes of the local anatomy. Scar tissue and flap reconstruction as well as the resection of motor and sensitive nerves may result in significant impairment of mouth opening, swallowing and chewing function. Adjuvant radiotherapy leads to additional deterioration. These factors might restrict the functional success of implant-prosthetic rehabilitation.

Materials and Methods: From 1986 to 2002, 142 patients with squamous cell carcinoma underwent resective tumour surgery and subsequent implant prosthetic rehabilitation. In case of tumours of the tongue, floor of the mouth and the mandible, fixed bridges have been placed to prevent mucosa irritation. In case of maxillary tumours, bar supported obturator prostheses have been inserted.

A retrospective analysis by clinical examination and interview was performed to investigate the following factors:

- masticatory function,
- swallowing function,
- phonetic function,
- hygiene ability,
- aesthetics,
- patient's satisfaction.

Results: All patients reported of aesthetic improvements. Functional improvements were reported by 82% of the patients. 12% reported of no improvements and 6% of patients reported even of functional deterioration. In these cases fixation and restricted mobility of the tongue impaired bolus transport. Resection of the hypoglossus nerve results in invincible swallowing problems. Reduced mouth opening and hyposalivation following radiotherapy complicate oral hygiene and are additional factors impairing chewing and swallowing function.

Conclusion: Compromised local anatomy, deteriorations in neuromuscular function and impairments following adjuvant radiotherapy make successful functional rehabilitation in tumour patients particularly difficult. To obtain predictable results and to avoid treatment failure a close cooperation between surgeon and restorative dentist is indispensable. Even if full functional rehabilitation is rarely obtained most patients appreciate the restorative result.

PD.141 Oral care intervention contributes to a reduction in postoperative complication rates for reconstructive surgery of advanced head and neck cancers

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Introduction: This study is to investigate whether an oral care intervention program contributed to a reduction in the occurrence rates of postoperative complications for malignant head and neck tumors.